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## SUMMARY OF RS-6 SPECIFICATION DEVIATIONS

PARA	COMMENT
3.3.2.	Approval of the RS-6 against this paragraph awaits correlation of our drop test data with the contractors.
3.6.1.	Approval of the RS-6 against these paragraphs awaits results of RS-6
3.6.2.	
3.6.3.	life test cycle test and cold test.
4.4.1.	The RR-6 tuning indicator is required to swing through an arc of $10^{\circ}$ the RR-6 indicator swings through an arc of $8.5^{\circ}$ .
4.4.3.5.	The RR-6 receiver calibration accuracy does not meet the requirements of the specification. The contractor is not agreeable to hand calibration and shall submit argument in the form of excessive number of man hours necessary and doubtfulness of accuracy in accomplishing it. The contractor claims the best condenser he can obtain in the required size is calibrated to $\pm 5$ uuf. at each 10% rotational point. Under these circumstances the mathematical error is greater than 100kc at 15 mcs. Statistical data shows that .03% calibration accuracy is not had with this condenser. Data on ten sets calibrated at 5% initial rotation and phased at 15 mcs was requested.
4.4.4.1.	The condenser which the contractor wishes to use in RR-6 shall not be of such precision as to allow .03% calibration accuracy.
4.6.8.1.	A figure of 50 uv/meter with the field strength meter antenna at a distance of one foot is cited by the specifications for the high frequency oscillator. A figure of 3 uv/meter is cited by the specification for the B.F.O oscillator. As the field intensity drops off as the cube of the distance from the radiating receiver, the radiated signal at a distance of 50 feet would have a field intensity of .4 uv/meter since the maximum measured was 50k uv.

DOCUMENT NO. 6  
 NO CHANGE IN CLASS. ☐ at one foot. The field intensity of the BFO signal at 50 feet is extremely

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- 4.6.8.1. low. Recommended values of field intensity of oscillator at 1 foot - 50k uv, of BFO oscillator at 1 foot 15k uv/meter.
- 4.6.10.1. The contractor can made 90db on cross modulation. The specification says, Quote, "shall not exceed 100db". The specification should be changed to read: "shall exceed \_\_\_db.
- 4.6.13. The RS-6xx receiver did not meet the .03% drift figure. Contractor indicated the RS-6 shall be properly compensated. Tests data on RS-6 shall be necessary before the equipment can be approved in this respect.
- 4.6.15. This paragraph specifies that the receiver high frequency oscillator shall not be pulled more than 100 cy. between gain control settings of maximum sensitivity and 200 k uv sensitivity. The RS-6xx sensitivity range was from max. to 2 v. such that the oscillator was subject to . greater loading than was called for by the specification. This sensitivity range has been reduced on RS-6 and test data on RS-6 shall reveal whether this requirement has been met.
- 5.2.1.2. The transmitter oscillator condenser and tank coils are not dual mounted as required by this paragraph.
- 5.2.6. This paragraph requires that sufficient storage space shall be provided for the transmitter power plug. This has not been done on RT-6xx. Contractor states that he has redesigned the plug retainer to allow more effective cord length and eliminate damage to the cord.
- 5.3.2. Approval has been given for a B current max of 82 ma on RS-6xx. Specifications require that RS-6 B current be limited to 75 ma.
- 5.3.4. Transmitter RF. power output at specified frequencies and impedances as per table in para 5.3.4. are not met by RT-6xx. The contractor has stated that his minimum power output shall be 7 watts.
- 5.3.7. The keying characteristics of the RT-6xx did not meet the specifications.

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- 5.3.7. RS-6 test data shall be required before approval can be given.
- 6.1.3.1. The transformer does not contain a separate 6x4 filament winding. The contractor claims that because of the high input current on vibrator operation a 20% regulation of such a winding with change in B load would make it impractical for filament supply of 6x4.
- 6.1.3.5. The RS-6x does not comply with para. 6.1.3.5. with respect to adequate fusing at all times. The contractor claims he has done the best he can under the space limitations and also that a gross overload damages the 6x4 before the transformer.
- 6.1.3.7. Whether the neon bulb input voltage indicator of RP-6 lights at the recommended voltage or not depends on the limits of break down voltage and the <sup>re</sup>precision with which the transformer is wound. The problem is more with the bulbs and if we desire to retain this feature we must write a tight production test spec.
- 6.2.2.5. The contractor has given no indication that the RP-6 power transformer is to be potted according to specifications although they claim they have been working with various transformer manufacturers in an effort to accomplish this.
- 6.2.2.6. Approval depends on transformer being coated.
- 6.2.2.8. The RP-6 case approval is pending data on drop test.
- 6.3.1. B current max. of 82 ma. has been approved for RS-6xx. A B current max of 75 ma is required of RS-6.
- 6.3.2. With an increase of filter capacity in RS-6 power supply tests shall have to determine the new regulation.
- 6.3.3.2. The conducted noise on the battery cables, according to the specification, between 100kc and 40 mc, shall not exceed 10 uv or 2uv in the receivers tuning and BFO ranges. The contractor measures a maximum at 150 kc of 4500 uv and a 28 uv maximum in the receiver's range. Since operational

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the battery is an isolated generator this voltage is not likely to cause interference.

- 6.3.3.3. The radiated noise from the battery cables as called for in para. 6.3.3.3. between 100kc and 40 mc is .5 uv/meter except in the receiver tuning and B.F.O range where the maximum allowed is .2uv/meter. Below the receivers tuning range the hash runs up to 15 K uv/meter at 150kc. In the receivers tuning range the hash is so weak it cannot be measured. Since the I.F. rejection ratio exceeds 90db and the cross modulation figure exceeds 90db the front end rejection to this noise is excellent. In practice these deductions are born out as the hash pick up (the receiver antenna as much away from the battery cables as is feasible) is below the site noise.
- 6.3.3.5. The contractor claims he has not found the means or the space to filter to the extent required in the specifications.
- 6.5. The contractor has not submitted complete test data.
- 7.2.1. RS-6xx B current has been approved at a maximum of 82 ma. RS-6 requirement states 75ma as B current maximum.